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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SHENG, TOM V

ART UNIT	PAPER NUMBER
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2673

DATE MAILED: 07/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/978,306

Applicant(s)

O'KEEFFE ET AL.

Examiner

Tom V Sheng

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22 is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-21 and 23-29 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-6, 12-17, 20-21, and 27-29 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 4, 5, 9 and 10 of copending Application No. 09/978173 in view of Bohn (US 2003/0006965 A1) and Chinen (US 6099929).

The claims of copending application recite all limitations in the current application except regarding free extending button(s), associated cantilevered mounting, and island mounted on said body (where roller is provided through and is supported by a cantilevered arm that are clearly read by claims 1 and 2 of copending application). These limitations are taught by Bohn's surface area having a scrolling wheel and Chinen' tongues 17, 18 and Chinen's mounting strip 15 as described in rejections below. It would have been obvious for one of ordinary skill in the art at the time the

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invention was made to include Bohn's and Chinen's features into copending application so as to provide the benefits of roller access with flexible protective covers as buttons.

This is a provisional obviousness-type double patenting rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1 and 17 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for "said extending button being depressible separately with respect to a remainder of said top housing" (claim 1, lines 6-7; claim 12, lines 7-8) by stating that the extending button is supported in a cantilevered fashion and sufficiently flexible to allow it to be depressed (page 1, paragraph 5 of specification), does not reasonably provide enablement for "said cantilever mounting providing a spring force for the free extending button to return the free extending button to a neutral position subsequent to being pressed by a user" (claim 1, lines 10-11; claim 17, lines 1-3). The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. Details should be given to the location of the cantilevered mounting and interaction between the extending button and the remainder of the top housing with respect to the cantilevered mounting.

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5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. Claims 10 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is unclear how "a single hinge point more than halfway toward the back of said device, such that said top housing and extended button can flex on either side of said hinge point" (claim 10, lines 2-3; claim 23, lines 10-12) works since "more than halfway" does not disclose the relative position of the hinge point between the extended button and the (remainder of) the top housing.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-5, 7-8, 10-13, 17-21 and 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bohn (US 2003/0006965 A1) in view of Chinen (US 6099929).

As to claims 1 and 11, Bohn teaches an input device (mouse 12; figure 1) comprising:

a body of said device (housing or casing 94 including a top surface 50, a bottom surface, and opposed side portions 44 and 46; paragraph 28);

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electronic circuitry mounted in said body (a movement detection device or transducer; paragraph 30).

Bohn does not teach a top housing mounted over said body; and a free extending button integrally formed with said top housing; said extending button being depressible separately with respect to a remainder of said top housing; said top housing providing a cantilevered mounting of said extending button to said body of said device.

Chinen teaches a protective cover to be applied over mouse keys (column 1, lines 37-55). In one embodiment (figure 2), the sheet 14 reads on claimed top housing, either one of the free longitudinal tongues 17, 18 reads on claimed free extending button, and the adhesive strip 15 reads on claimed said top housing providing a cantilevered mounting of said extending button to said body of said device (column 3, lines 10-20). Further, the free longitudinal tongues are inherently freely depressible and would return to an original position after the depression is released.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to incorporate the protective cover of Chinen into Bohn's mouse, due to the extra protection against dust or grease to the keys and the benefit of able to provide some indicia for viewing.

As to claim 2, Chinen's cover sheet 14 with corresponding tongues 17 and 18 are made of flexible material such as plastic and thus do not read on claimed wherein the top housing and extending button are metal.

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However, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use either plastic or metal since both can provide flexibility with the proper choice of material and design.

As for claim 3, modified Bohn teaches a surface area having a scrolling wheel 18 (figure 1) extending through. This area reads on claimed island. Further, it is a matter of comfort and/or appearance consideration that the island would extend over an edge of said extending button.

As for claim 4, modified Bohn teaches tongues 17 and 18 that read on claimed first and second extending buttons.

As for claim 5, modified Bohn teaches a scrolling wheel 18 that reads on claimed roller.

As to claim 7, Chinen's cover sheet 14 is secured to the top surface 50 by means of an adhesive strip 15 behind the mouse keys 14 and 16.

Chinen does not teach claimed wherein said top housing curves around a back of said device and attaches to the back of said device.

However, it would have been obvious for one of ordinary skill in the art at the time the invention was made to extend the cover sheet 14 towards the back of the mouse, as this would provide more surface for indicia and further protection for the mouse.

As to claim 8, the use of resilient bumper between said top housing and said body obviously provides a cushioning to the user holding the mouse.

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As to claims 10, 17, 18 and 19, Chinen's mounting strip 15 reads on claimed hinge point(s) and cantilevered mounting.

Claim 12 is combination of claims 1-4 and is rejected accordingly.

Claim 13 is rejected per analysis of claim 5.

As for claims 20-21 and 25-26, Chinen's covering could be made to cover just the front, front and middle, or the whole body, as determined by needs.

Claim 23 corresponds to and is rejected per analyses of claims 1 and 10.

As to claim 24, press fit is a straightforward way of attaching the top housing to the body.

9. Claims 6, 14-16 and 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bohn and Chinen as applied to claim 1 or 12 above, and further in view of Culver (US 6,256,011 B1).

As for claim 6, modified Bohn teaches a scrolling wheel 18 mounted on an axle positioned within housing 94 and the scrolling wheel 18 is further depressible as a button (page 3, paragraph 32). However, Bohn does not teach that a cantilevered arm supporting the roller, wherein the cantilevered arm provides a spring force to bias roller upward through the slot, eliminating the need for a return spring.

Culver teaches in a control device 10 (figure 1A) an arm assembly 14 comprising an arm member 20 with a cylindrical roller 22 housed in a carrier portion 24. The arm is coupled to the bottom plate 18a and/or top plate 18b. The roller is further extended through an opening 26. Clearly, the mounting is cantilevered when either bottom plate

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18a or top plate 18b is used. Also, a similar scrolling wheel can obviously be used in the place of a cylindrical roller. Culver further teaches a beneficial use of the roller 22 as a mouse button by providing a pressure switch 44 under the carrier portion 24 of the arm assembly 14 and allowing a finger pressure on the roller 22 to engage the pressure switch 44. See column 8, lines 17-38.

Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to incorporate a cantilevered arm in Bohn's mouse to support the scrolling wheel 18 because of the simple structure in making the scroll wheel 18 works also as a depressible button.

Claims 14, 15, 16 correspond to claims 1, 6, and 12 and are rejected accordingly. Naturally the cantilevered would be attached to an inside surface of the top interior housing behind the roller since access to the top housing is blocked by the top interior housing.

Claim 27 is rejected per analyses of claims 1, 3, 5 and 6.

As for claims 28-29, Chinen's covering could be made to cover just the front, front and middle, or the whole body, as determined by needs.

Allowable Subject Matter

10. Claim 22 is allowed.

11. Claims 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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12. The following is a statement of reasons for the indication of allowable subject matter: none of the prior arts of record teaches the limitations "a non-metallic interior housing mounted beneath said top housing between said top housing and electronic circuitry inside said device; wherein said top housing is metal, and said interior housing isolates said metal from said electronic circuitry" of claims 9 and 22, in combination with other limitations associated with.

Response to Arguments

13. Applicant's arguments filed on 4/26/2004 have been fully considered but they are not persuasive.

As for claim 1, Applicant argues that Chinen does not teach the protective cover to provide a spring force to return the extending portions to a neutral position. The examiner disagrees since the cover is flexible and inherently provides a spring force with respect to the adhesive strip.

As for claim 12, Applicant argues that the island serves to functionally limit the upward travel of the extending buttons. The examiner disagrees because the limitation "so that a gap between said button and said island is not visible from above" is recited, not about limiting the upward travel of the extending buttons.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tom V Sheng whose telephone number is (703) 305-6708. The examiner can normally be reached on 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (703) 305-4938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tom Sheng
June 26, 2004

Lun-Yi Lao
Primary Examiner

